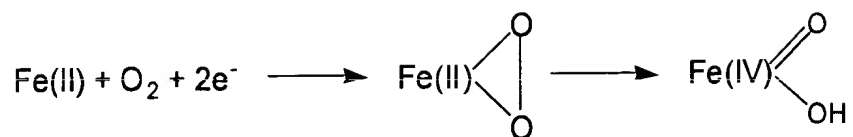
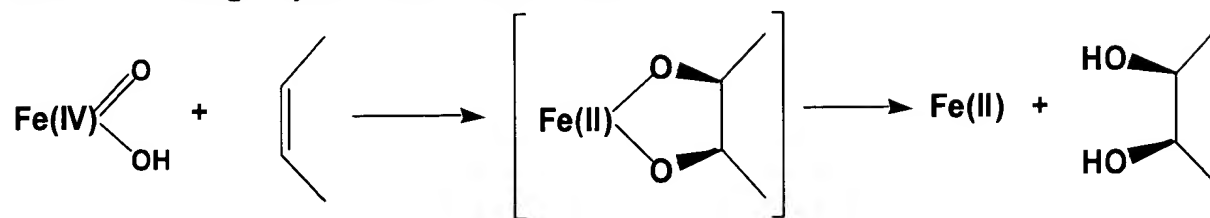


FIGURE 1

**Activation of O<sub>2</sub>**



**Reaction Through Cyclic Ester Intermediate**



**FIGURE 2**

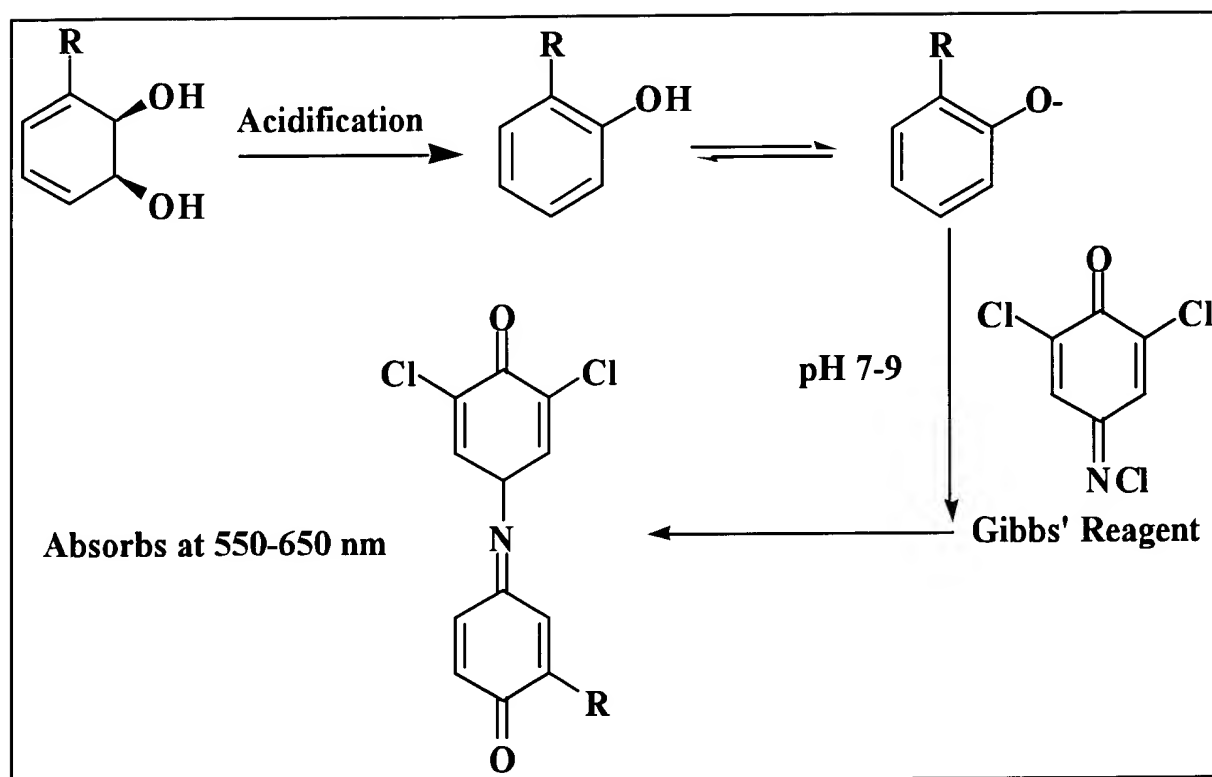


FIGURE 3

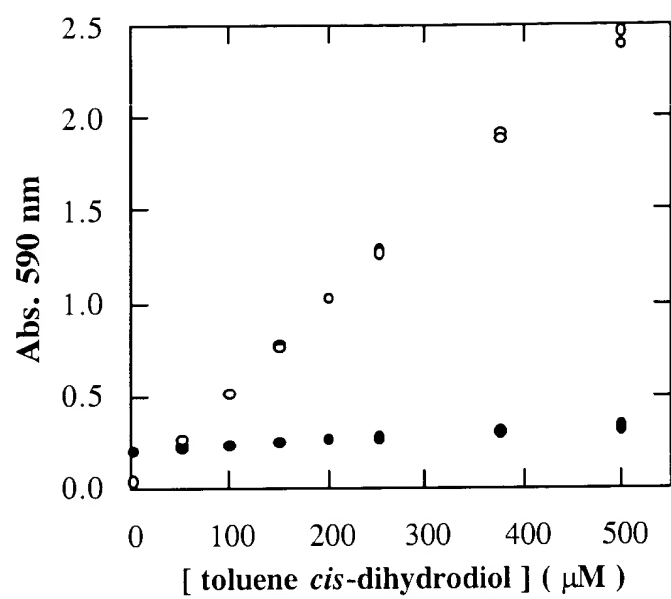


FIGURE 4

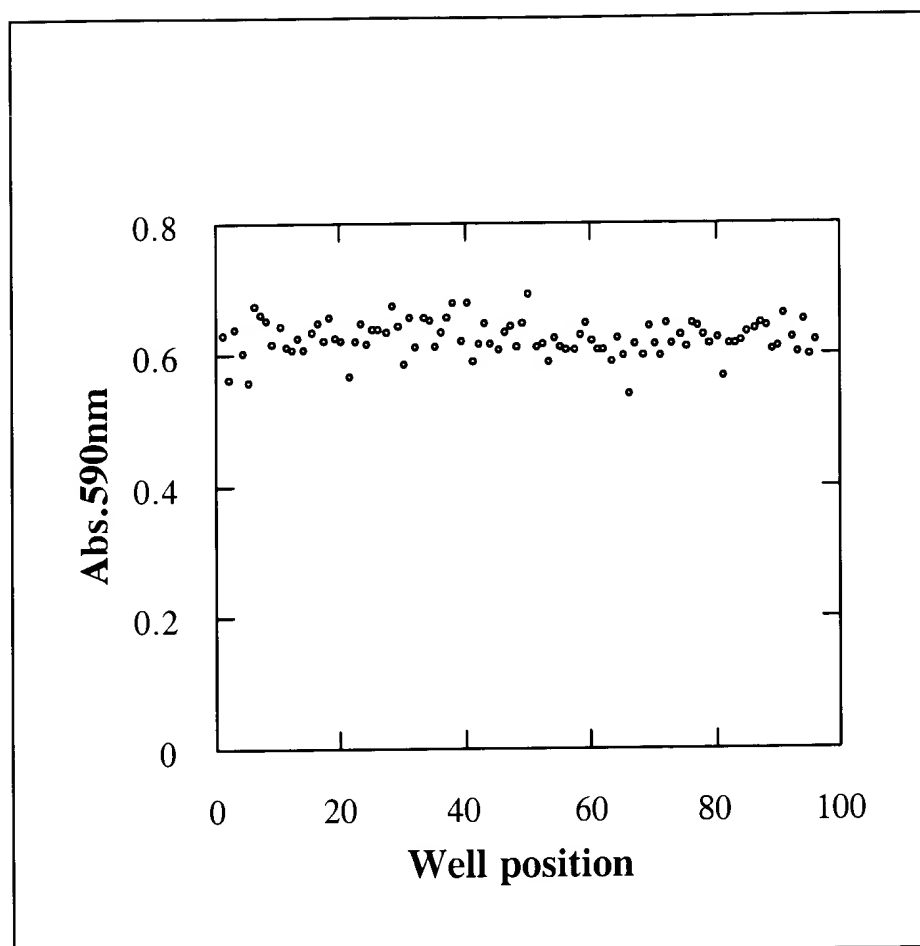


FIGURE 5

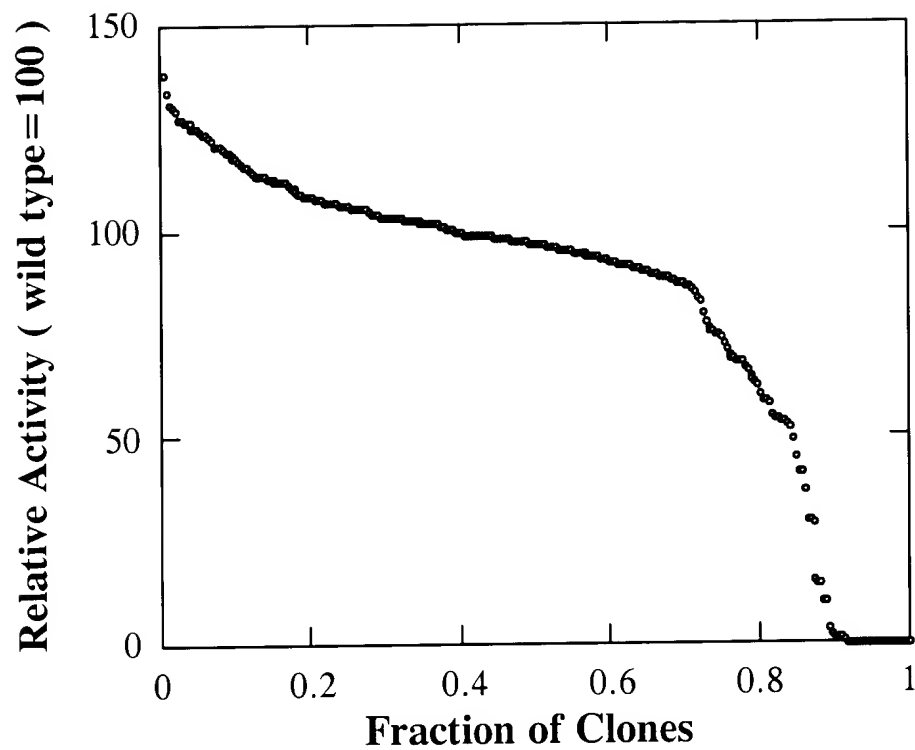


FIGURE 6

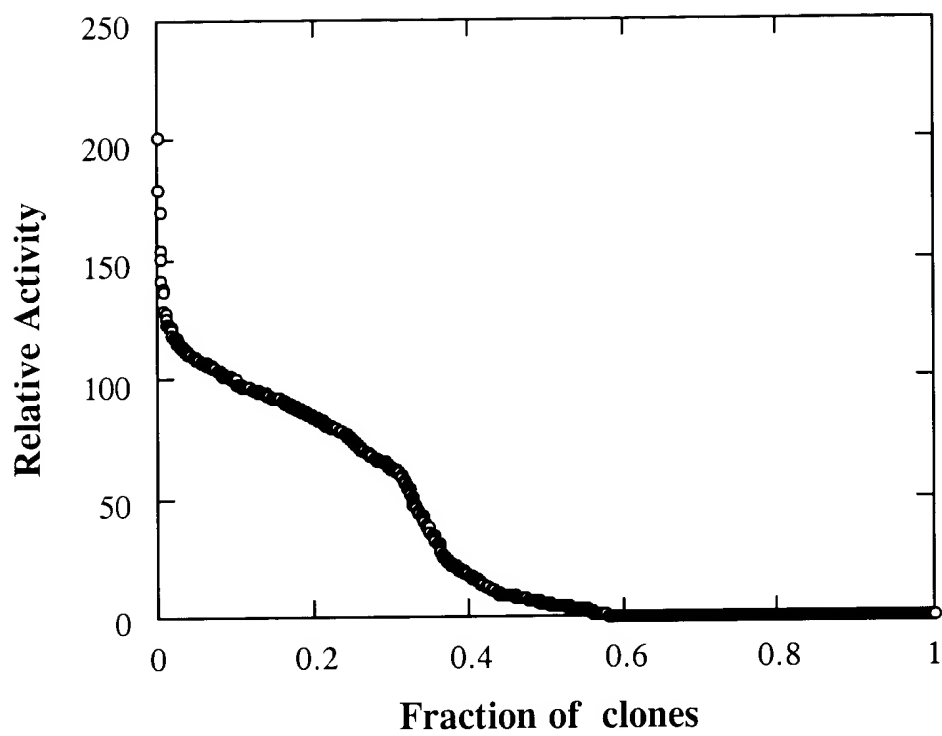
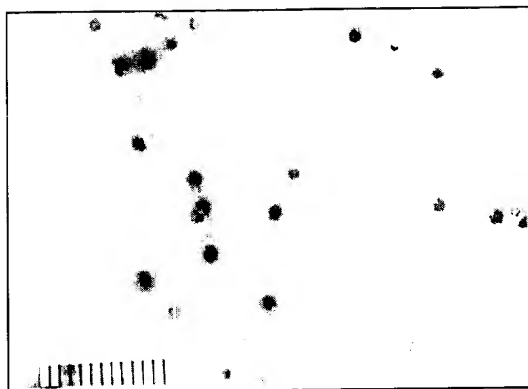
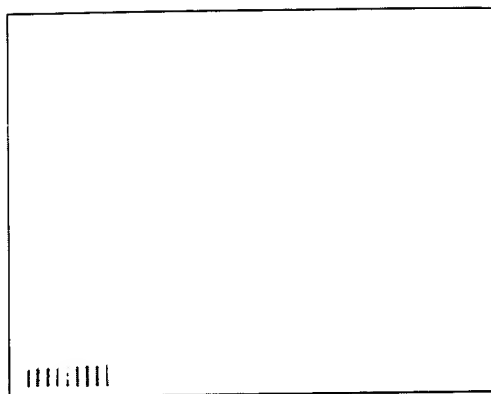


FIGURE 7

A.



B.



C.

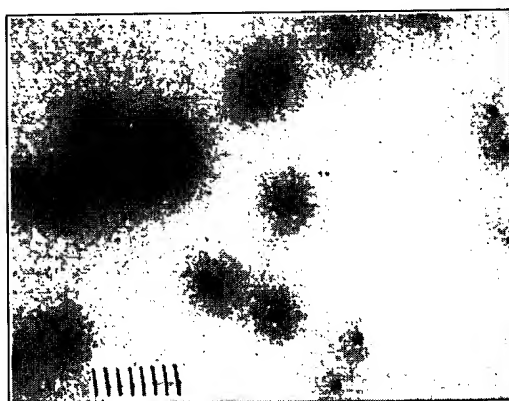
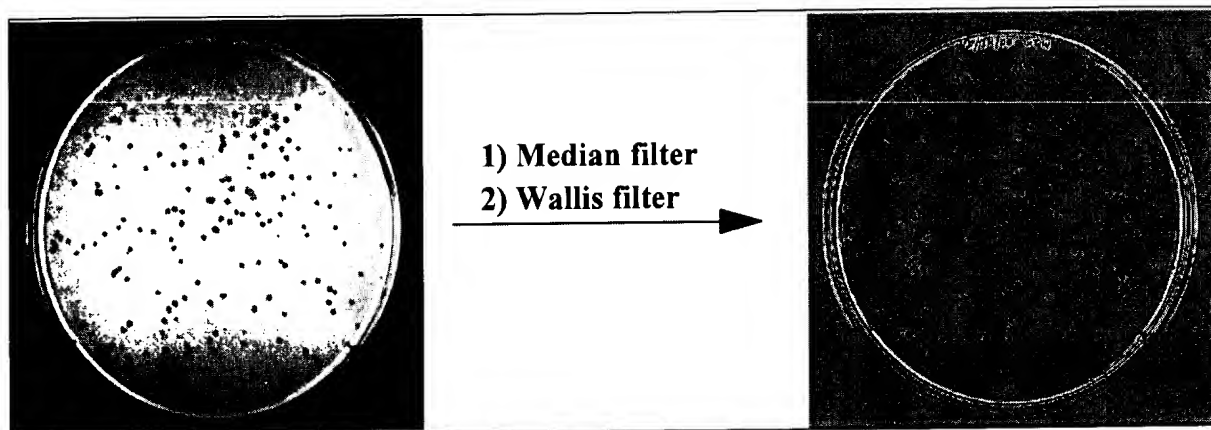
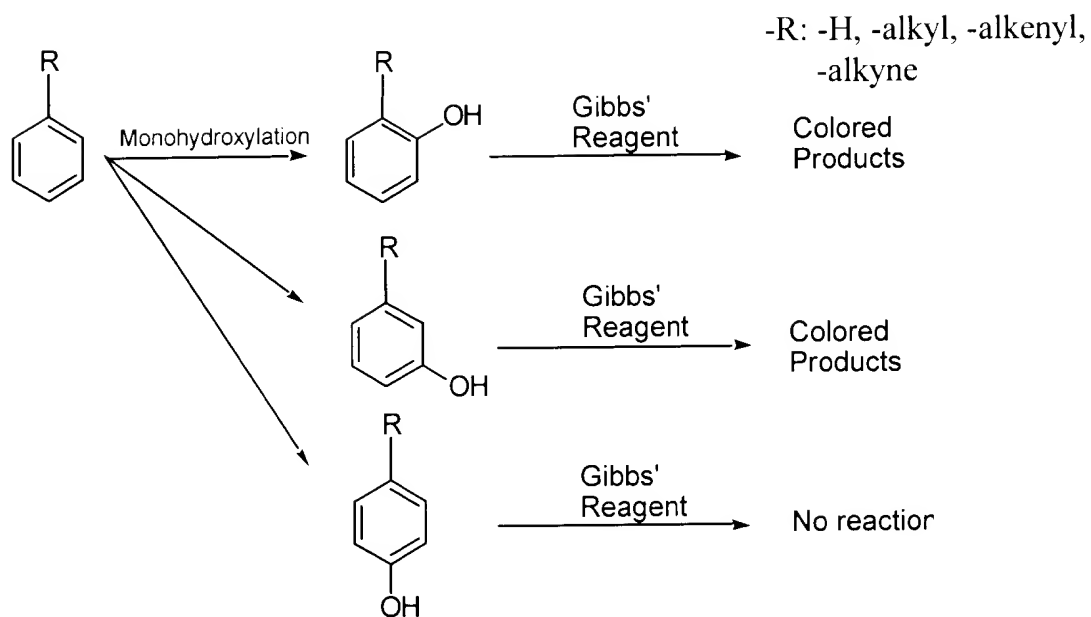


FIGURE 8



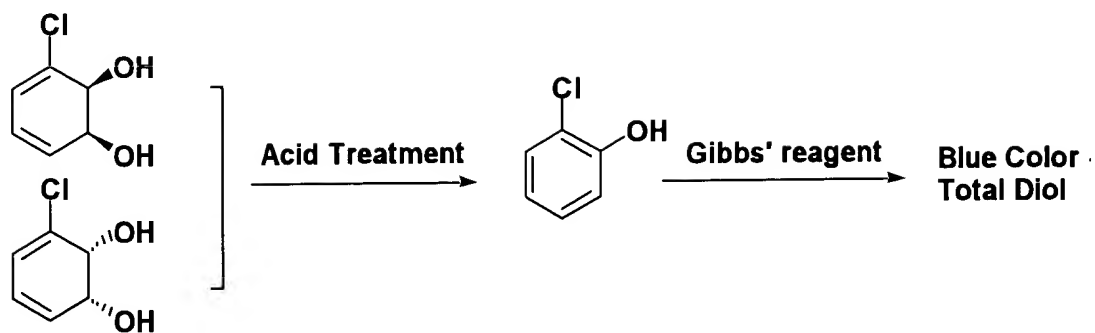


**FIGURE 9**



**FIGURE 10**

### Pathway I



### Pathway II

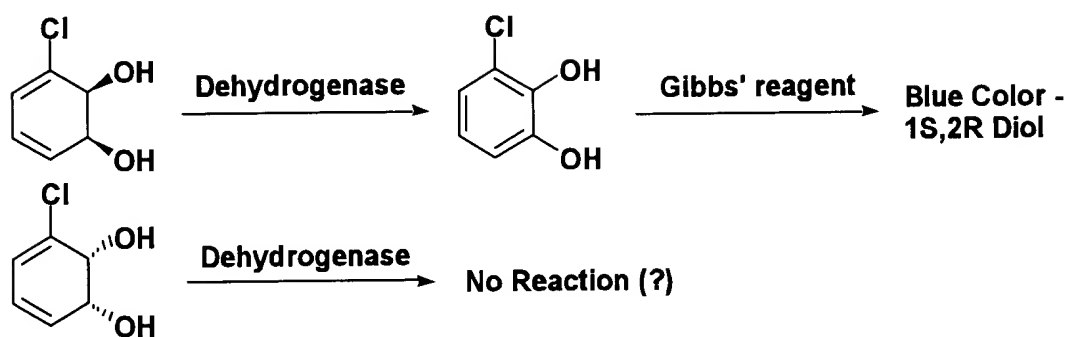
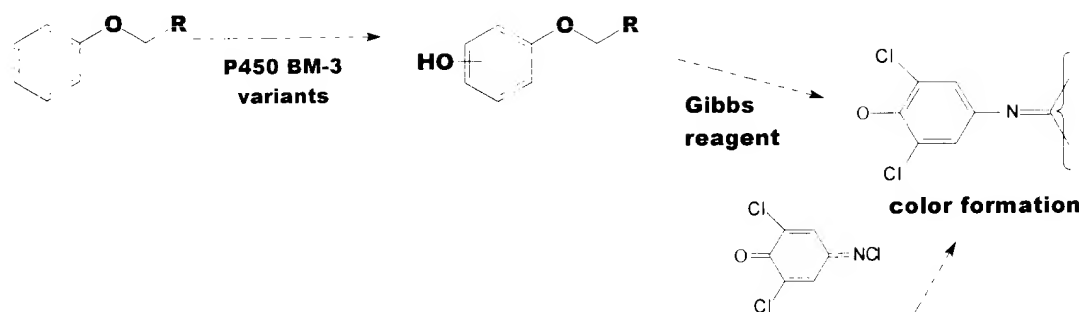


FIGURE 11

## Reaction principle

I.



II.

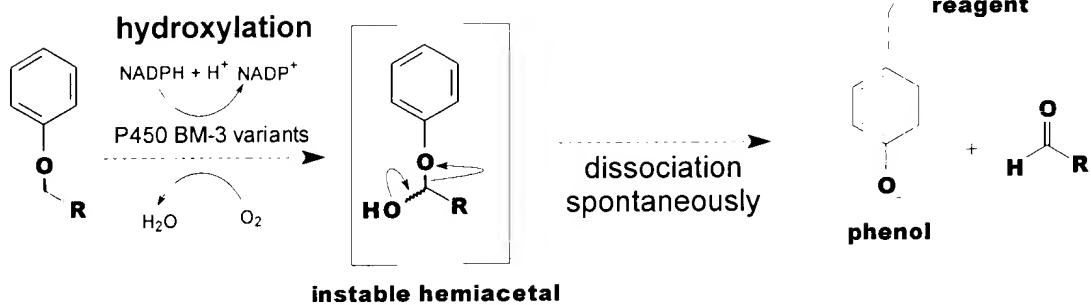
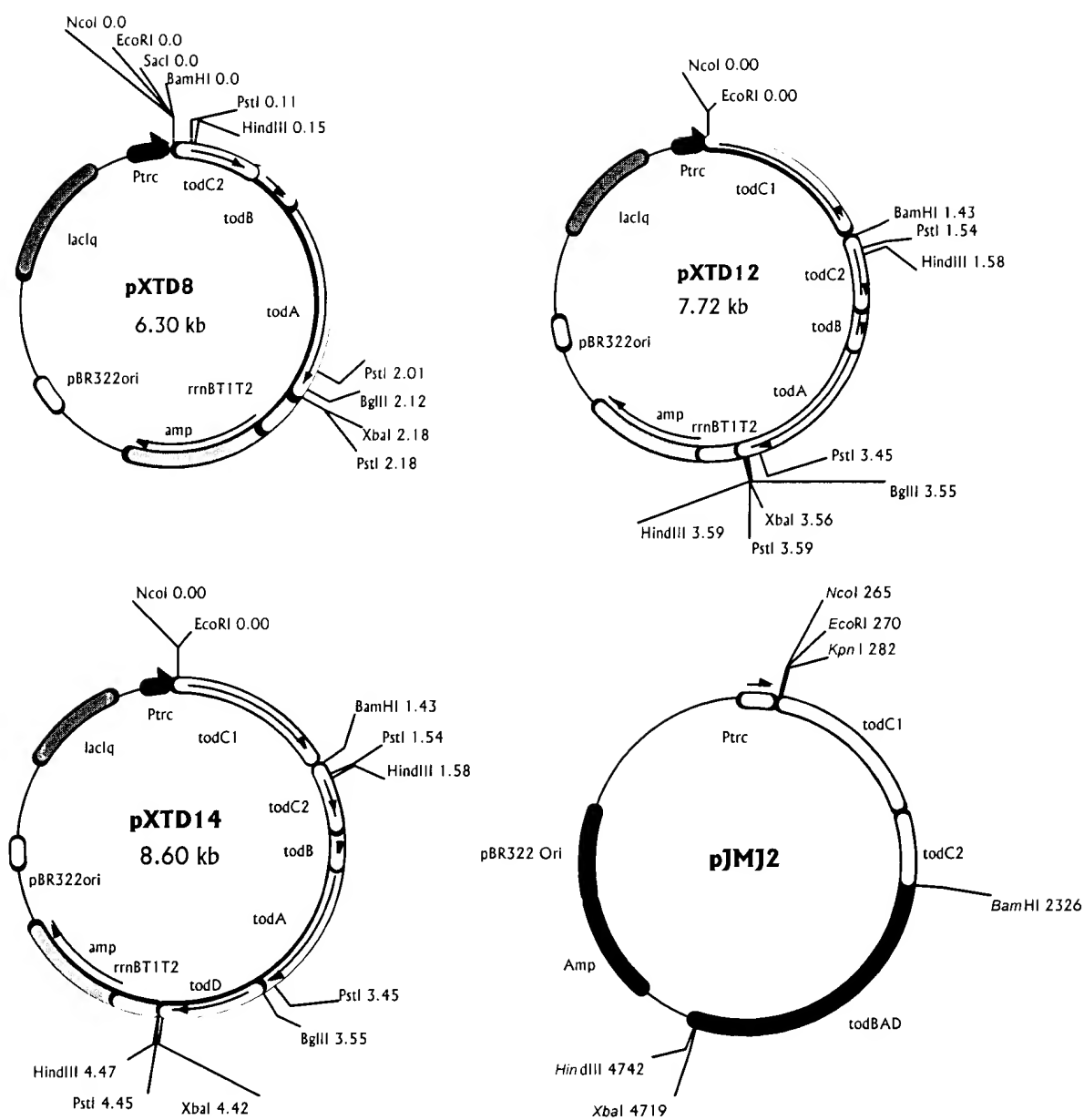


FIGURE 12



**FIGURE 13**

# Chemistry used to detect dioxygenase products

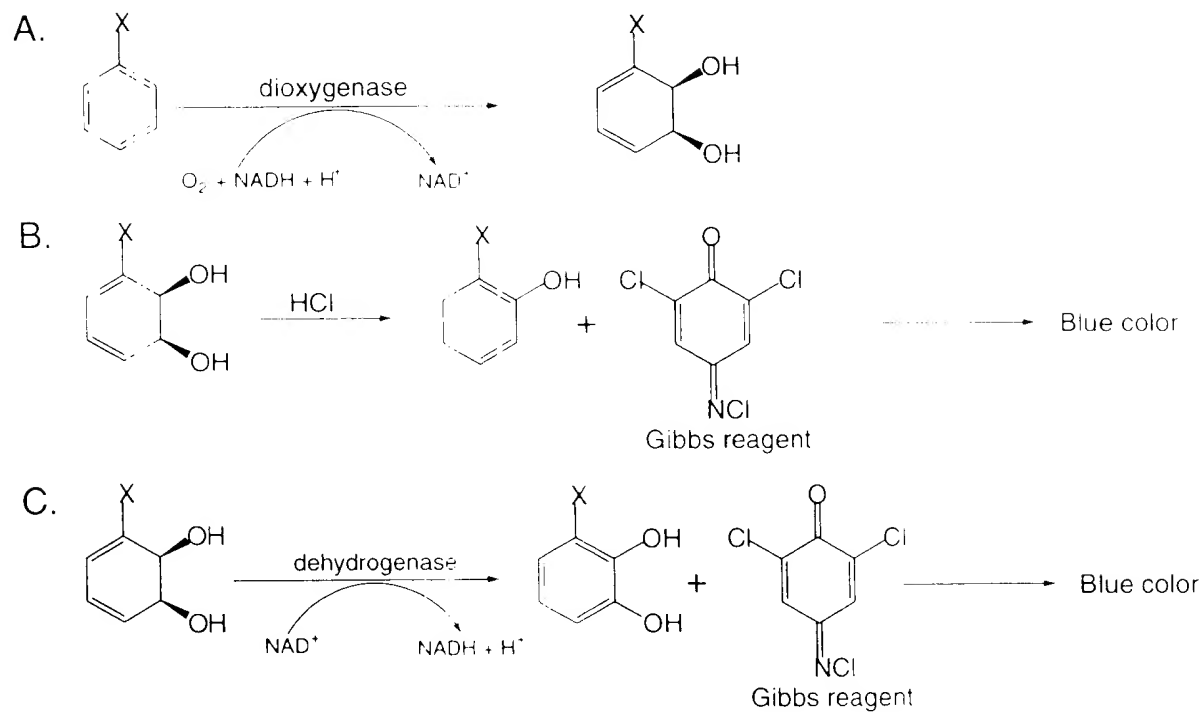
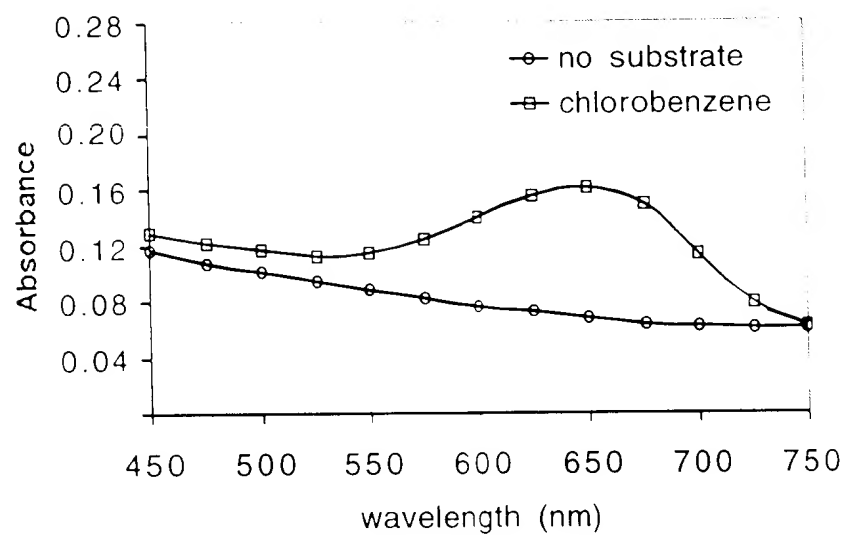


FIGURE 14

# Validation of spectroscopic detection method

A.



B.

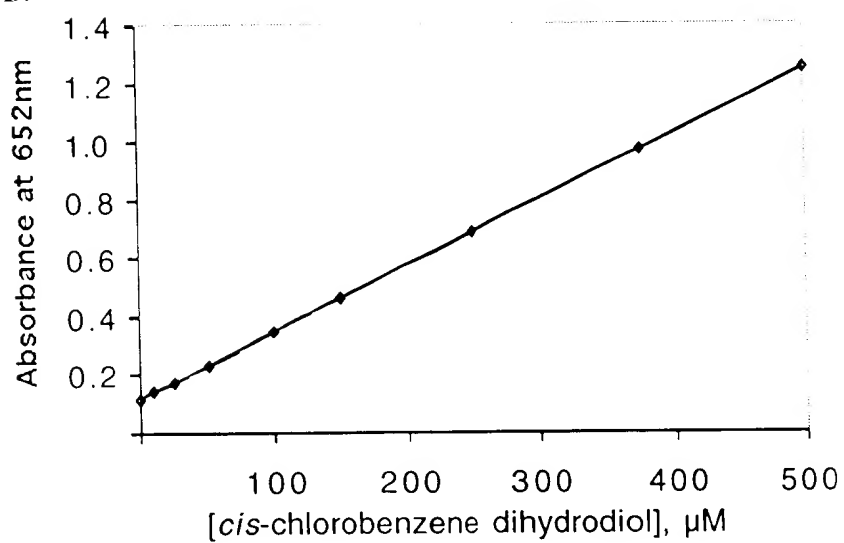
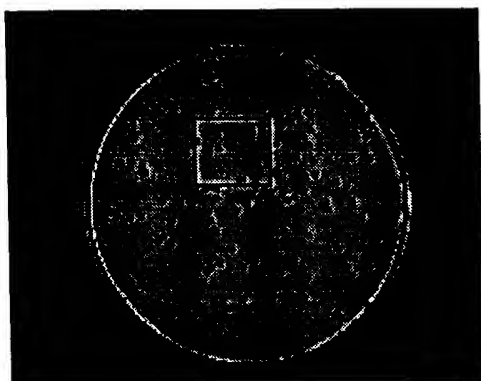


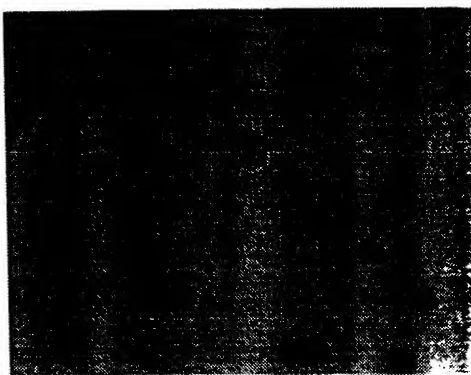
FIGURE 15

Image analysis

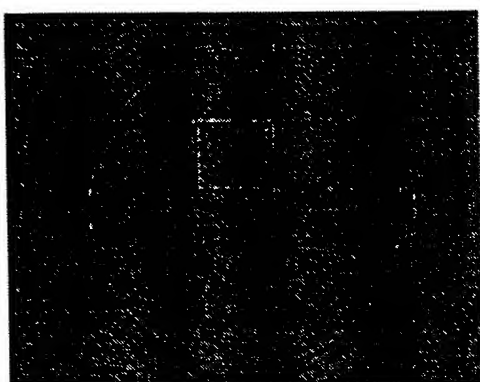
A.



B.



C.



D.

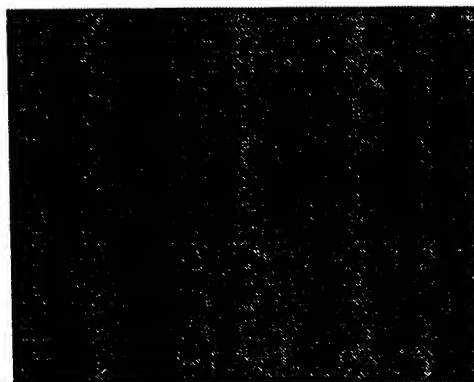
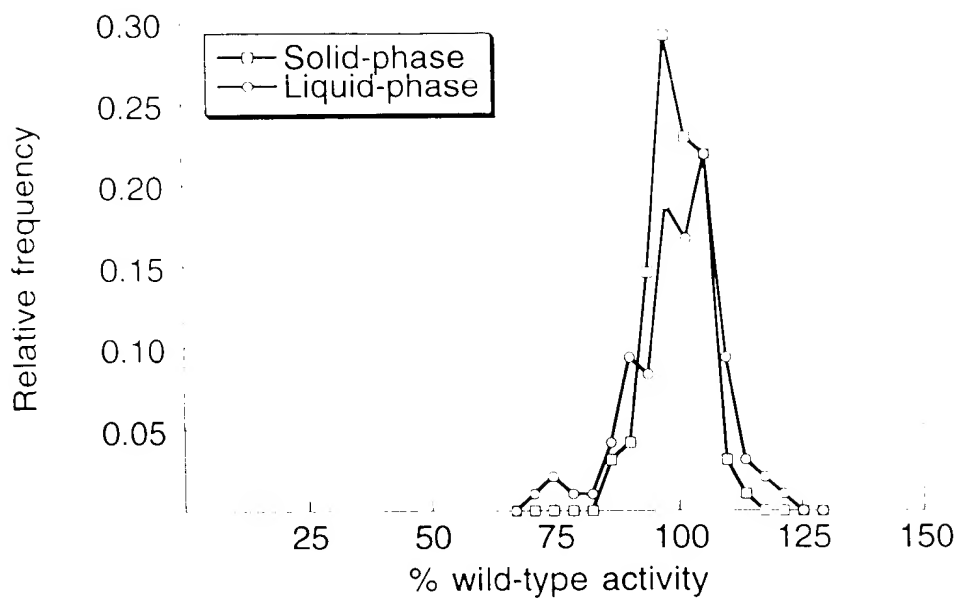


FIGURE 16



## Validation of screening methods

A.



B.

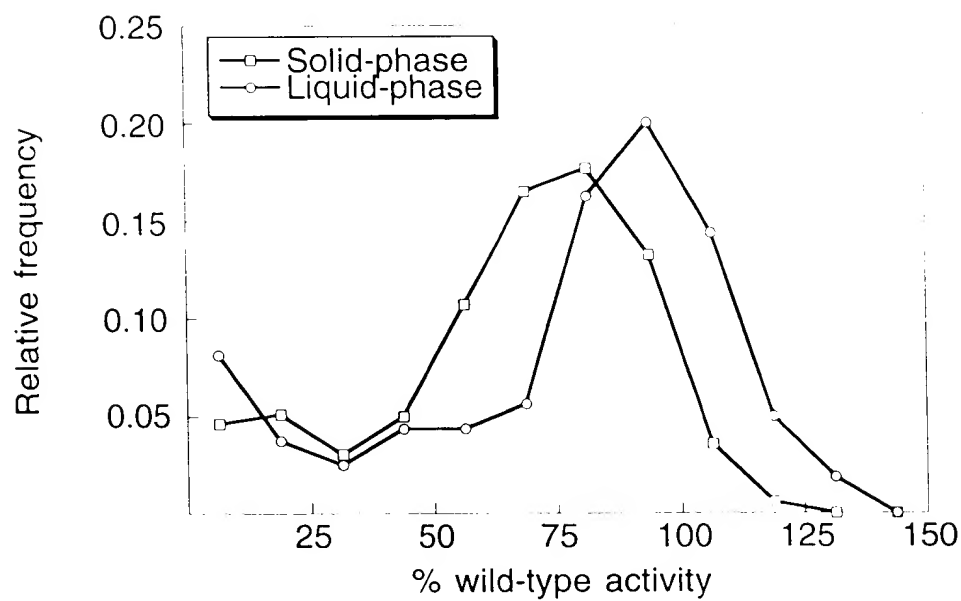


FIGURE 17